



Getting Plants Off to a Great Start: Proper Planting, Watering, and More!

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Get to Know Your Garden

- Soil texture, moisture retention, current sun & shade patterns;
- Which of your existing plants are thriving?

Choose the Right Plants for Your Site

- Step 1 will help you choose plants that will grow well in your garden conditions;
- Using native plants as much as possible will help ensure that your garden thrives in our dry summer-wet winter climate, and with less water use overall during the dry months. Native plants also attract native songbirds and other wildlife;
- Choose fruit cultivars that grow well in the Pacific Northwest;
- Consider attracting butterflies, ladybugs, and other beneficial insects with plants;
- Remember to choose plants that will fit your garden, so you don't plant a "job for life".

Build Healthy Soil

- Incorporate 3 inches of compost or other organic matter, approx. 8-12 in. into the soil;
- In areas with established tree roots, apply a 1-inch layer of compost and dig in lightly, then mulch with a 2-inch layer of compost after planting. The mulch layer will gradually work its way into the soil via rainfall, earthworms, and other organisms;
- Healthy soil = healthy roots = healthy plants.

Select Healthy Nursery Plants

- Look for strong structure in woody plants, with no crossing or weak branches;
- If it's a grafted plant, the graft union should be visible just above the soil line;
- Leaves should be a healthy-looking green (unless they're supposed to be yellow);
- Accurate plant tag, no weeds in the pot.
- Not pot-bound.

Proper Planting

- It's very important that plants are not installed too deeply in the soil. The entire trunk of trees and shrubs, and the crown of perennials and grasses, must be above the soil and exposed to air in order for the plant to thrive. If it is covered with soil or mulch, the plant can develop problems that may not be evident until they are very serious. After removing the plant from the pot or burlap ball, brush away the soil from the base of the trunk and crown to reveal the spot where the roots begin to flare out. This root flare is the true level that the plant must be installed.
- Also, explore the edges of the root ball to look for any broken, girdling, or J-roots. Remove any girdling or J roots, and make a clean cut on any large broken roots. Plants cannot outgrow these problems, and if left as is, they will eventually harm the plant's health.
- Gently spread the remaining healthy roots apart to encourage lateral growth. Don't be shy! This is your best chance to correct any defects before they are buried underground.

Proper Planting, continued:

- Dig a hole that is at least twice as wide as the plant's root ball, but the exact same depth. If the soil at the bottom and sides of the hole is very hard and compacted, loosen it with a turning fork or pick, but re-compact it slightly before planting. Plants typically settle somewhat after watering, rainfall, and time, and it's important to limit this as much as possible.
- After planting, backfill with the surrounding soil and water deeply. Don't backfill with compost, as this causes the plant's roots to circle round and round in the "good dirt" and never establish well.

Timing:

- Trees, shrubs, and perennials are best planted in the mid-fall (Oct to mid-Nov). Late winter or early spring is also good. Herbs and grasses will establish quicker if planted in early spring because they are more susceptible to crown or root rot if planted right before the heavy rains begin fall or during the winter.

Mulching:

- Wood chips are the best mulch for all your ornamental landscape beds, as well as for fruit trees and shrubs. They improve soil structure and plant health, conserve water in the soil during dry months, reduce runoff and erosion during rainy months, provide a natural weed deterrent, and help prevent compaction by sun, water, pet and foot traffic. Large sized chips are highly recommended, as they are most effective and last longer.
- *Fine-shredded wood chips, bark dust, or beauty bark will knit together to create a compacted and impenetrable barrier to water and air, and an inhospitable environment for worms, and other beneficial organisms.*
- A 3-inch layer of wood chips is best for most plants, spread evenly over their root zone. However, Rhododendrons, Pieris, and Azaleas have very shallow root systems and should only have a 1-2 inch layer of mulch. *All mulches should be kept 3-6 inches away from the trunks of trees and shrubs, and the crowns of perennials and groundcovers.*
- Mulching is best done after planting is complete, because you do not want to incorporate the wood chips into the soil, like you would with compost. Incorporating wood chips into the soil will cause beneficial organisms to temporarily rob the nitrogen from your soil to begin the decomposition process, which can negatively affect new and existing plants. *When wood chips are placed on the soil surface as mulch, they will not cause loss of nitrogen in your soil.* For this reason, vegetable gardens should be mulched with compost, leaves, or straw, which can be incorporated into the soil.
- During mulching and planting, step on the soil as little as possible, and stir it up a bit with a turning fork wherever it does get compacted. Non-compacted soil is best for plant health.

Watering

- Step 1 will help you know your existing soil well, and Step 2 will make it both drain better and retain water better, for best establishment of the plants you have chosen in Step 3.

Watering, continued

- No matter how large they are, most plants have a “pancake-like” root zone, and the goal of all watering should be to reach the entire root zone, not just the area nearest their trunk or crown. Water only long enough to reach just below and beyond the root zone, in order to encourage new root growth to go deeper and wider. Don’t guess about this or you may waste a lot of water and/or damage your plants! Use a soil corer or narrow hand shovel to test how quickly the water penetrates your garden soil.
- The time it takes to fully wet the root zone depends on your specific soil. The more sand your soil contains, the less time it will take to do this, and the more clay your soil contains, the more time it will take. Therefore, sandy soils will mean less watering time but more often, and clay soils mean more watering time but less often. *Keep in mind that over-watering is one of the most frequent causes of plant death in the PNW, especially with trees, shrubs, and perennials that prefer dry soil when mature, such as Madrona, Kinnickinnick, Lavender, Rosemary, and other herbs.*
- In all cases, go slow with your water pressure so that your soil can soak up the water with as little runoff as possible. Simple drip irrigation systems are easy to install and use, and save you lots of time, and reduce your water use as well as your water bill!

Fertilizing

- Use slow-release, balanced N-P-K organic fertilizer in the mid-spring (also in fall for lawns). For best absorption, scratch it lightly into the soil and then water. Roses, vegetables, and some perennials will benefit by a mid-summer repeat, but stop all fertilizing by mid-Aug. to prevent a flush of new growth that is harmed by cold weather.
- Over-fertilization at any time of year causes a surge in weak plant growth that is often attacked by pest insects, so always follow package directions. Fertilizer that lays too long on the soil surface or moves through the soil before it can be absorbed by plants, causes fertilizer-laden runoff to end up in our streams and lakes, and is a major problem in the PNW. *Once trees and shrubs are a few years old, they do not need any fertilization.*

Pruning

- Pruning goals should include enhancing the plant’s natural form, and directing new growth in ways that keep good air movement through its canopy. *Never top trees or large shrubs*, which creates a column of rot that causes them to decline.
- *Avoid pruning from early spring to late summer whenever possible*, to prevent disturbing birds that build their homes amidst tree and shrub branches during nesting season. Also, don’t over-thin the inner canopy, and leave a few dead twigs for them to roost on.

Free Online Resources!

- **Cascade Natural Yard Care-** <https://cascadewater.org/water-efficiency/natural-yard-care>
- **Good Bug Guide for beneficial insects:** <https://growsmartgrowsafe.org/GoodBugGuide>
- **The Garden Hotline-** free, customized advice: 206-633-0224 or help@gardenhotline.org
- **WSU/King Co. Master Gardener Hotline-** free, customized advice: ask-a-mastergardener@live.com
- **City Fruit-** free, downloadable fruit-growing and fruit-pest factsheets: <https://www.cityfruit.org/fruit-tree-care/resources>